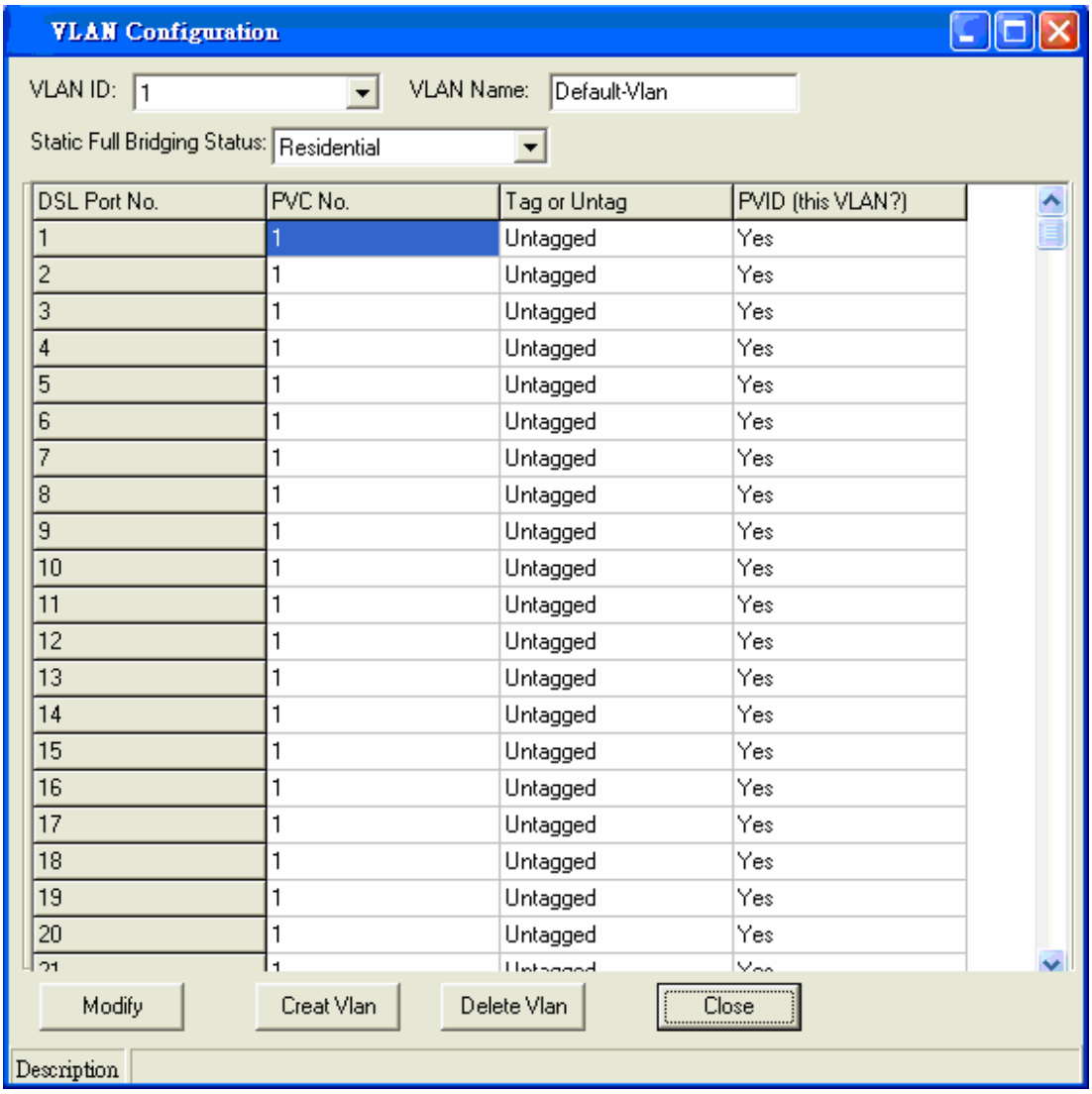
VLAN Configuration

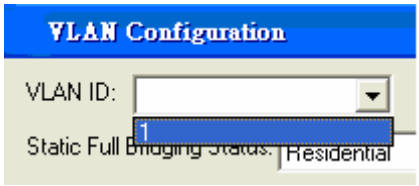
Allows the VLAN configuration to be viewed, created and modified. To configure the VLAN, proceed as follows:

View the VLAN

1. Double Click “VLAN” from the Function window. The VLAN configuration window will be displayed as follows:

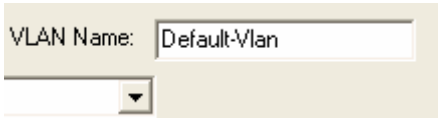


2. Select the required VLAN by using the VLAN ID drop-down list.

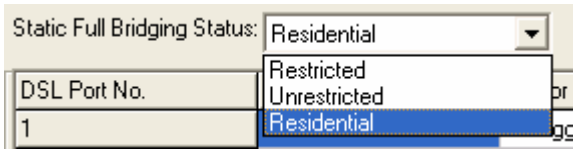


Modify the VLAN

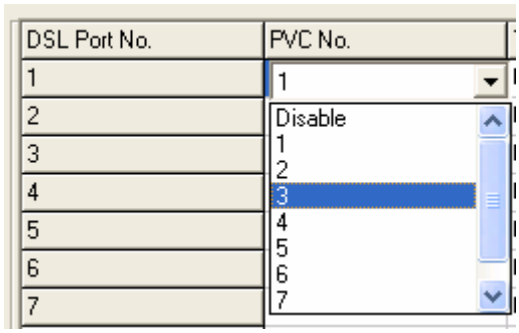
1. Change the name of the VLAN in the VLAN Name field.



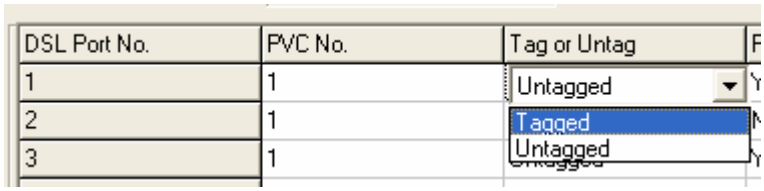
2. Set the Static Full Bridging Status as restricted, unrestricted or residential.



3. Set the PVC no. of the port by selecting either disable or 1 to 8 from the drop-down list.



4. Set the port as tagged or untagged.



5. Set the PVID of the Port.

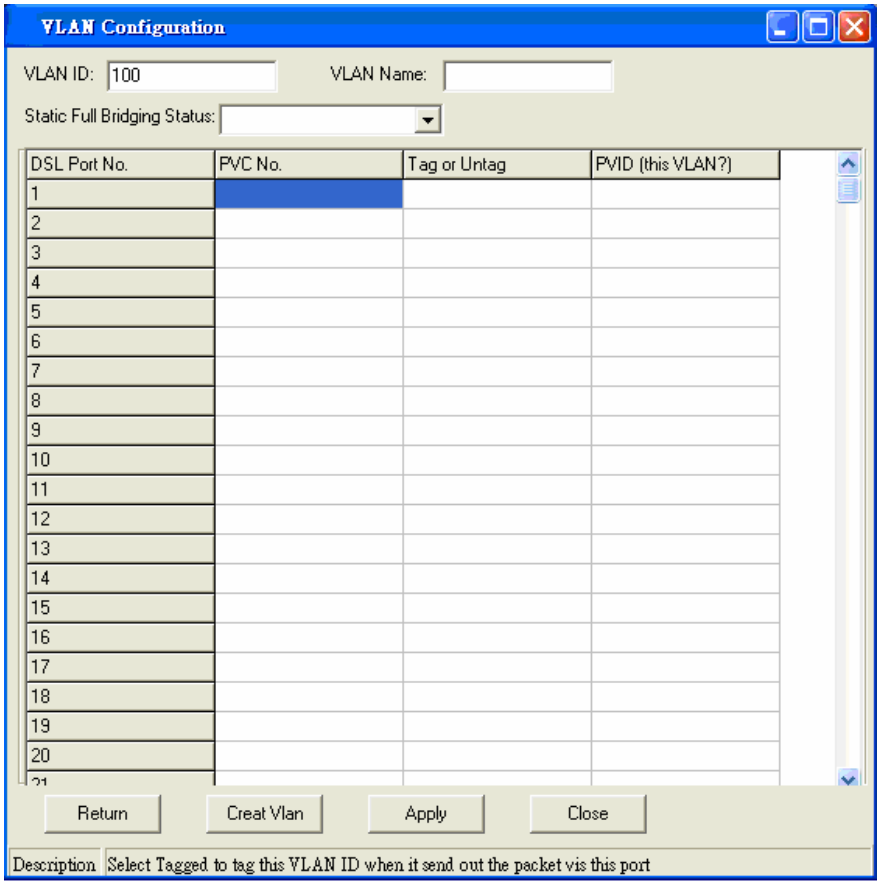
DSL Port No.	PVC No.	Tag or Untag	PVID (this VLAN?)
1	1	Untagged	1
2	1	Untagged	No(PVID=100)
3	1	Untagged	Yes
4	1	Untagged	
5	1	Untagged	1

6. Click Apply to submit the settings or click Close to close the VLAN Configuration window without saving the settings.

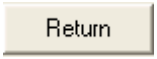
Create a VLAN

1. Click 

to activate a new VLAN configuration window where the new values for the VLAN are configurable.



2. Enter the VLAN ID, VLAN name, PVC No., Tagged or Untagged and PVID, respectively for each port.
3. Click 

to submit your settings.
4. Click 

to return to the previous configuration window.

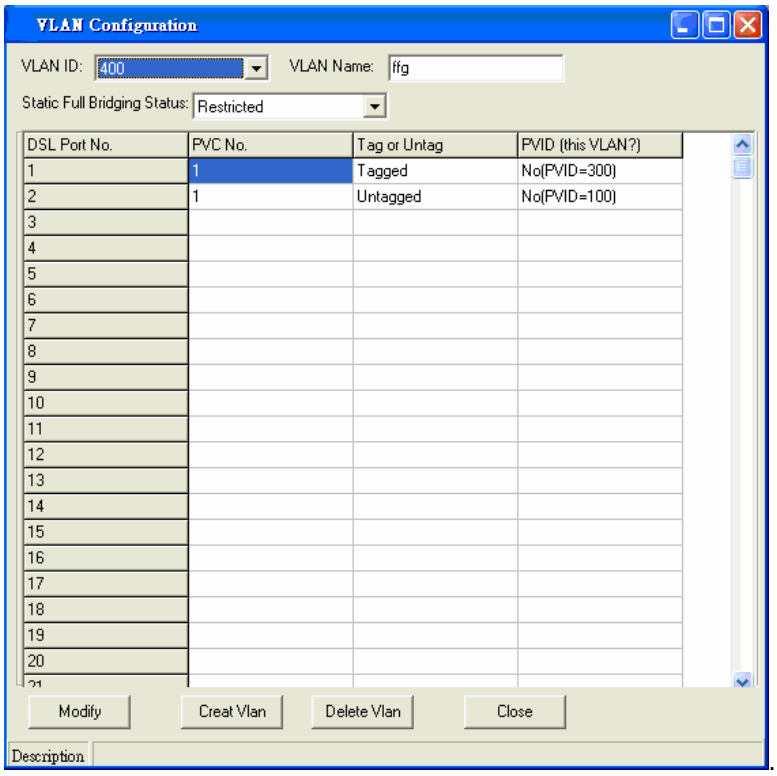


Table 2-7 VLAN Configuration Field Definitions

Field	Definition
VLAN ID	The VLAN ID for this VLAN. In devices supporting "Shared Vlan for multicast" capabilities, the information for a multicast mac addr is shared across VLAN s hence VLAN ID is an optional parameter. In devices supporting "Independent Vlan for multicast" capabilities each VLAN can have its own information for a multicast mac addr hence VLAN ID is a mandatory parameter in all the commands other than - get. Where there is no VLAN, VLAN ID is not required.
VLAN Name	Name of the VLAN
Static Full Bridging Status	This specifies the state of the full bridging for the VLAN. There can be three values associated with this, based on global fullBridgingStatus. These values can be restricted bridging, unrestricted full bridging and residential bridging. If the user does not specify the bridging mode at the time of VLAN creation, the VLAN inherits the globally set bridging mode. The user can modify the bridging mode for a created VLAN. If the dynamic entry for the VLAN to be created already exists, the user can only specify globally set bridging mode for this VLAN. The bridging modes are defined as Restricted, Unrestricted, and Residential. The default residential VLAN, like any other residential VLAN allows only one net side bridge port as its member. This port will be automatically added to the default VLAN if it is the only net side bridge port being added to the VLAN. Subsequently, the user can add another net side port to the egressportslist and untaggedportslist only after removing the previously added net side bridge port. Unrestricted bridging is not applicable for bridge ports created via the PPPoE interface, even though the VLAN may be unrestricted. **Default value:** residential
PVC No.	The set of ports that are permanently assigned to the egress list for this VLAN.
Tagged or Untagged	The set of ports that are transmitting traffic for this VLAN, as either tagged or untagged frames.
PVID	Port VID

VLAN Configuration Example by CLI

IP DSLAM supports port-based VLAN, and Group VLAN. This section describes how to create two VLAN groups (VLAN ID = 2, and 3). ADSL ports 1 & 2 (PVC 8/81) will join in VLAN group 2, and create new PVC (8/82) for ADSL1, and assign this PVC to VLAN group 3.

Besides, uplink interface ETH-0 will join VLAN group 2 & 3 as trunk interface.

Scenario

Configuration

Step 1: Create a VLAN group No.2, and assign to Bridge port 1(ADSL port 1 PVC 8/81), and 385(Eth-0)

```
$create vlan static vlanname vlan2 vlanid 2 egressports 1 385 untaggedports 1

Entry Created

VLAN Name                : vlan2
VLAN Index               : 2
Egress ports                : 1    385
Forbidden Egress Ports          : None
Untagged Ports              : 1
Bridging Mode               : Residential
Flood support Status            : enable
Broadcast support Status          : enable
$
```

Step 2: Set Bridge port 1(ADSL port 1 PVC 8/81) as PVID 2

```
$modify gvrp port info portid 1 portvlanid 2 acceptframetypes all ingressfilteri
ng true

Port Id                 : 1
Port VLAN Index           : 1        Accept Frame Types: All
Ingress Filtering           : False      Gvrp Status      : Disable
Failed Registrations        : 0        Last Pdu Origin    : 00:00:00:00:00:00
Restricted Vlan Registration    : False

Set Done

Port Id                 : 1
Port VLAN Index           : 2        Accept Frame Types: All
Ingress Filtering           : True       Gvrp Status      : Disable
Failed Registrations        : 0         Last Pdu Origin   : 00:00:00:00:00:00
Restricted Vlan Registration    : False
$
```

Step 3: Show current VLAN status

```
$get vlan curr info

VLAN Index         : 1
VLAN Status        : Other
Egress ports         : 1    2    3    4    5    6    7    8    9    10   11
12   13
 14   15   16   17   18   19   20   21   22   23   24   25   26   27
28   29   30
  31   32   33   34   35   36   37   38   39   40   41   42   43   44
45   46   4
7   48   385
Untagged Ports      : 1    2    3    4    5    6    7    8    9    10   11
12   13
 14   15   16   17   18   19   20   21   22   23   24   25   26   27
28   29   30
  31   32   33   34   35   36   37   38   39   40   41   42   43   44
45   46   4
7   48   385
Bridging Mode       : Residential
Flood support Status    : enable
Broadcast support Status  : enable

VLAN Index         : 2
VLAN Status        : permanent
Egress ports         : 1    385
Untagged Ports       : 1
Bridging Mode       : Residential
Flood support Status    : enable
Broadcast support Status  : enable

VLAN Index         : 3
VLAN Status        : permanent
Egress ports         : 2    385
Untagged Ports       : 2
Bridging Mode       : Residential
Flood support Status    : enable
Broadcast support Status  : enable
```

Step 4: Create new PVC (8/82) in ADSL port 1

Create atm vc and aal5 interface

```
$create atm vc intf ifname aal5-48 lowif atm-0 vpi 8 vci 82

Entry Created

VC IfName    : aal5-48            Low IfName       : atm-0
VPI        : 8               VCI            : 82
Admin Status   : Up              Oper Status        : Up
Aal5 Tx Size   : 1536             Aal5 Rx Size       : 1536
AAL Type     : AAL5             AAL5 Encap       : LLC Mux
Channel      : Interleaved          Last Change (sec)    : 0
MgmtMode     : Data             Row Status         : active
VC Type      : PVC              VC Topology       : Point to Point
$
```

Create eoa interface

```
$create eoa intf ifname eoa-48 lowif aal5-48

Entry Created

IfName      : eoa-48         LowIfName    : aal5-48
FCS         : False
Pkt Type     : ALL
Oper Status    : Up            Admin Status  : Up
$
```

Step 4: Create a new bridge port 49, and maps to new created PVC 8/82 in ADSL port 1

```
$create bridge port intf ifname eoa-48 portid 49 learning enable status enable


Entry Created


Port Id            : 49          IfName         : eoa-48
Max Unicast Addresses : 16            Learning Status  : Enable
Port Oper Status     : Enable          Port Admin Status: Enable
Sticky Status        : Disable         FDB Modify      : Enable
Acl Global Deny Apply : Enable
Acl Global Track Apply: Enable
```

Step 5: Create a new VLAN group No.3, and assign to Bridge port 49(ADSL port 1 PVC 8/82), and 385(Eth-0)

```
$create vlan static vlanname vlan3 vlanid 3 egressports 49 385 untaggedports 49


Entry Created


VLAN Name              : vlan3
VLAN Index              : 3
Egress ports              : 49   385
Forbidden Egress Ports       : None
Untagged Ports            : 49
Bridging Mode             : Residential
Flood support Status         : enable
Broadcast support Status      : enable
```

Step 6: Set Bridge port 49(ADSL port 1 PVC 8/82) as PVID 3

```
$modify gvrp port info portid 49 portvlanid 3 acceptframetypes all
ingressfiltering true


Port Id               : 49
Port VLAN Index        : 1       Accept Frame Types: All
```

```
Ingress Filtering          : False     Gvrp Status      : Disable
Failed Registrations       : 0         Last Pdu Origin  : 00:00:00:00:00:00
Restricted Vlan Registration: False


Set Done


Port Id                  : 49
Port VLAN Index          : 3         Accept Frame Types: All
Ingress Filtering          : True      Gvrp Status      : Disable
Failed Registrations       : 0         Last Pdu Origin  : 00:00:00:00:00:00
Restricted Vlan Registration: False
```

Step 7: Modify the VLAN group 2, and add Bridge port 2(ADSL port 2 PVC 8/81)

```
$modify vlan static vlanname vlan2 egressports 1 2 385 untaggedports 1 2


VLAN Name                : vlan2
VLAN Index               : 2
Egress ports               : 1    385
Forbidden Egress Ports         : None
Untagged Ports             : 1
Bridging Mode              : Residential
Flood support Status           : enable
Broadcast support Status        : enable


Set Done


VLAN Name                : vlan2
VLAN Index               : 2
Egress ports               : 1    2    385
Forbidden Egress Ports          : None
Untagged Ports             : 1    2
Bridging Mode              : Residential
Flood support Status           : enable
Broadcast support Status        : enable
```

Step 8: Add port3 to vlan2 use vlanid index

```
$modify vlan static vlanid 2 egressports 1 2 3 385 untaggedports 1 2 3
VLAN Name                : vlan2
VLAN Index               : 2
Egress ports               : 1    2    385
Forbidden Egress Ports         : None
Untagged Ports             : 1    2
Bridging Mode              : Residential
Flood support Status           : enable
```

```
Broadcast support Status         : enable


Set Done


VLAN Name                : vlan2

VLAN Index               : 2

Egress ports               : 1    2    3    385

Forbidden Egress Ports         : None

Untagged Ports             : 1    2    3

Bridging Mode              : Residential

Flood support Status           : enable

Broadcast support Status         : enable
```

Step 9: Modify the VLAN from 8/81 to 0/35

Set the AAL5 strat number is 0

```
$modify atm vc intf ifname aal5-1 disable


VC IfName    : aal5-1          Low IfName       : atm-1

VPI        : 8             VCI            : 81

Admin Status   : Up            Oper Status       : Down

Aal5 Tx Size   : 1536          Aal5 Rx Size      : 1536

AAL Type     : AAL5          AAL5 Encap       : LLC Mux

Channel      : Interleaved       Last Change (sec)    : 0

MgmtMode     : Data          Row Status        : active

VC Type      : PVC           VC Topology      : Point to Point


Set Done


VC IfName    : aal5-1          Low IfName       : atm-1

VPI        : 8             VCI            : 81

Admin Status   : Down          Oper Status       : Down

Aal5 Tx Size   : 1536          Aal5 Rx Size      : 1536

AAL Type     : AAL5          AAL5 Encap       : LLC Mux

Channel      : Interleaved       Last Change (sec)    : 0

MgmtMode     : Data          Row Status       : active
```

```
VC Type     : PVC          VC Topology      : Point to Point
```

(Set VPI / VCI is 0 / 35)

```
$modify atm vc intf ifname aal5-1 vpi 0 vci 35


VC IfName    : aal5-1          Low IfName       : atm-1
VPI         : 8              VCI             : 81
Admin Status   : Down             Oper Status      : Down
Aal5 Tx Size   : 1536             Aal5 Rx Size     : 1536
AAL Type     : AAL5           AAL5 Encap       : LLC Mux
Channel      : Interleaved        Last Change (sec)    : 0
MgmtMode     : Data           Row Status       : active
VC Type      : PVC            VC Topology      : Point to Point


Set Done


VC IfName    : aal5-1          Low IfName       : atm-1
VPI         : 0             VCI             : 35
Admin Status   : Down            Oper Status      : Down
Aal5 Tx Size   : 1536             Aal5 Rx Size     : 1536
AAL Type     : AAL5           AAL5 Encap       : LLC Mux
Channel      : Interleaved        Last Change (sec)    : 0
MgmtMode     : Data           Row Status       : active
VC Type      : PVC            VC Topology      : Point to Point
```

Step 9: Set AAL5 as enable

```
$modify atm vc intf ifname aal5-1 enable


VC IfName    : aal5-1          Low IfName       : atm-1
VPI         : 0             VCI             : 35
Admin Status  : Down            Oper Status      : Down
Aal5 Tx Size  : 1536             Aal5 Rx Size     : 1536
AAL Type     : AAL5           AAL5 Encap       : LLC Mux
Channel      : Interleaved        Last Change (sec)    : 0
```

```
MgmtMode    : Data          Row Status      : active
VC Type     : PVC           VC Topology     : Point to Point


Set Done


VC IfName   : aal5-1          Low IfName      : atm-1
VPI         : 0             VCI             : 35
Admin Status  : Up              Oper Status     : Down
Aal5 Tx Size  : 1536            Aal5 Rx Size    : 1536
AAL Type    : AAL5          AAL5 Encap      : LLC Mux
Channel     : Interleaved       Last Change (sec)  : 0
MgmtMode    : Data          Row Status      : active
VC Type     : PVC           VC Topology     : Point to
```